

*With the Medical Officer of Health's Compliments.*

CARDIFF  
PORT SANITARY AUTHORITY.

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ANNUAL REPORT

FOR THE YEAR 1898,

BY

EDWARD WALFORD, M.D., D.P.H., CAMB.,

MEDICAL OFFICER OF HEALTH.



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CARDIFF:  
TUDOR PRINTING WORKS.  
—  
1899.

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*Chief Inspector of Nuisances :*

DAVID JENKINS, CERTIFICATE SANITARY INSTITUTE.

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# Cardiff Port Sanitary Authority.

TOWN HALL,  
CARDIFF.

## *TO THE CHAIRMAN AND MEMBERS OF THE CARDIFF PORT SANITARY AUTHORITY.*

GENTLEMEN,—

I have the honour to submit to you my Annual Report for the year 1898.

The Port Sanitary District of Cardiff was constituted in the year 1882, by a Provisional Order of the Local Government Board, which was subsequently confirmed by Parliament.

In this Order the boundaries of the District are defined as follows :—

“So much of the Port of Cardiff as lies between the River Rumney and  
“Lavernock Point; together with the waters of the said Port within  
“such limits, and the place for the time being appointed as the Customs  
“Boarding Station for such part of the said Port, and every other  
“place for the time being appointed for the mooring or anchoring  
“of ships for such part of the said Port, under any regulations for  
“the prevention of the spread of disease issued under the authority  
“of the Statutes in that behalf; and the watersides, docks, basins,  
“and creeks of and belonging to such part of the said Port.”

By a Provisional Order, dated 27th July, 1893, the limits of Jurisdiction of the Cardiff Port Sanitary Authority were extended, and on the 15th September, 1894, an Order of the Board was issued permanently constituting the Authority. This Order came into operation on the 9th November, 1894, and contains the following provisions :—

### SECTION I.—CONSTITUTION OF PORT SANITARY AUTHORITY.

ARTICLE 1.—This Order shall come into operation on the Ninth day of November, One Thousand Eight Hundred and Ninety-four, unless it shall become Provisional, and until this Order comes into operation the said Order dated the Twenty-seventh day of July, One Thousand Eight Hundred and Ninety-three, shall continue in force.

ARTICLE 2.—The Mayor, Aldermen, and Burgesses of the said Borough of Cardiff, acting by the Council, as the said Urban Sanitary Authority, shall be permanently constituted the Port Sanitary Authority for the part of the said Port of Cardiff, hereinafter described.

ARTICLE 3.—The Port Sanitary Authority may from time to time appoint committees consisting of Members of such Authority for the exercise of any powers which, in the opinion of such Authority, can be properly exercised by committees, but the acts of every such committee shall, unless otherwise directed by the Port Sanitary Authority, be submitted to such Authority for approval.

Provided that a committee so appointed shall in no case be authorised to borrow money or to issue any precept for contributions, or to enter into any contract, and it shall be subject to the provisions of Part IV. of the First Schedule to the Local Government Act, 1894, so far as they are applicable.

## SECTION II.—LIMITS OF JURISDICTION.

ARTICLE 4.—The jurisdiction of the said Port Sanitary Authority shall extend to so much of the said Port of Cardiff as is comprised within the following lines, that is to say :—

A straight line drawn due south from the seaward extremity of the common boundary of the Parishes of Sully and Lavernock to the boundary of the said Port and a line following and coincident with the boundary of the said Port from its commencement at the River Rumney to the point at which the straight line firstly hereinbefore mentioned meets such boundary ;

together with the water of the said Port of Cardiff within such limits, and the place or places for the time being appointed as the Customs Boarding Station or Stations for such part of the said Port, and every other place for the time being appointed for the mooring or anchoring of ships for such part of the said Port under any regulations for the prevention of the spread of diseases issued under the authority of the Statutes in that behalf, and the docks, basins, harbours, creeks, rivers, channels, roads, bays, and streams, belonging to such part of the said Port.

## SECTION III.—ASSIGNMENT OF POWERS, &c.

ARTICLE 5.—For the purpose of this Order the following Section of The Public Health Act, 1875, the Public Health (Officers) Act, 1884, the Public Health (Ships, &c.) Act, 1885, the Public Health (Members and Officers) Act, 1885, and the Public Health Acts Amendment Act, 1890, shall apply ; and the Port Sanitary Authority shall have, exercise, perform, and be subject to, all the powers, rights, duties, capacities, liabilities, and obligations, of an Urban Sanitary Authority under the same Sections, so far as those Sections are applicable to waters within the jurisdiction of such Port Sanitary Authority, or to ships coming or being within the said jurisdiction, or to persons upon any such ship, or brought by any such ship within the said jurisdiction, or to goods or things upon any such ship, or to goods or things landed from any such ship, and being within the said jurisdiction, and which in the opinion of the said Authority or their Medical Officer of Health requires to be disinfected or destroyed ; namely :

Of the Public Health Act, 1875 :—

Section 70, relating to polluted water.

Sections 91 to 111, both inclusive, relating to Nuisances.

Sections 120 to 133, both inclusive, relating to Infectious Diseases and Hospitals.

Sections 134 to 140, both inclusive, as to the prevention of Epidemic Diseases.

Sections 141 and 142, relating to Mortuaries.

Sections 173 and 174, relating to Contracts.

Sections 175, 176, and 177, relating to Purchase of Lands.

Sections 179, 180, and 181, relating to Arbitration.

Sections 182 to 186, both inclusive, and Section 188, relating to Bye-Laws.



Section 189 (except as regards the Offices of Surveyor and Collector),  
Sections 191 to 196, both inclusive, and Sections 197, 198, 205, and  
206, relating to Officers and Conduct of Business of Local Authorities.

Sections 236 to 239, both inclusive, relating to Mortgages.

Sections 245, 247, (as amended by the District Auditors Act, 1879), 249,  
and 250, relating to Audit.

Sections 241, and 253 to 258, both inclusive, and Section 269 (as amended  
by the Summary Jurisdiction Act, 1884), relating to Legal Proceedings.

Section 278, relating to Settlement of Disputes as to Boundaries.

Sections 299 to 302, both inclusive, relating to defaulting Local  
Authorities.

Sections 305 to 310, both inclusive, relating to miscellaneous Provisions.

Sections 327, 328, and 329, being Saving Clauses.

Of the Public Health (Officers) Act, 1884 :—

Section 2.

Of the Public Health (Ships, etc.) Act, 1885 :—

Section 2.

Of the Public Health (Members and Officers) Act, 1885 :—

Section 2.

Of the Public Health Acts Amendment Act, 1890 :—

Section 3, so far as it enables an Urban Sanitary Authority to adopt  
Section 48.

Provided as follows :—

(1.) Nothing herein contained shall affect the powers of any Riparian  
Authority except as to such waters, ships, persons, and things as  
above mentioned.

(2.) In this Article the term “ship” includes vessel or boat.

The regulations of the Local Government Board prescribe, with regard to the  
Medical Officer of Health :—

“That he shall prepare an annual report, to be made to the end of  
“December in each year, comprising tabular statements so far as he  
“shall have been able to obtain the necessary information, of the  
“sickness and mortality of persons on ship-board within the District,  
“classified according to diseases, ages, and vessels, and a summary  
“of the action taken during the year for preventing the spread of  
“disease. The report shall also contain an account of the proceedings  
“in which he has taken part or advised under the Public Health Act,  
“1875, so far as such proceedings relate to conditions dangerous or  
“injurious to health, and also an account of the supervision exercised  
“by him, or on his advice, for sanitary purposes over places and  
“vessels that the Port Sanitary Authority has power to regulate, with  
“the nature and results of any proceedings which may have been so  
“required and taken in respect of the same during the year.”

This report is therefore made in accordance with the above quoted regulations.

The floating population of the district is roughly estimated at 7,000 persons, and is contained for the most part in the following docks :—

	West Bute Dock.	East Bute Dock.	Roath Dock.	Penarth Dock.	Penarth Tidal Harbour.	
Width of sea gate...	45ft	57ft.	80ft.	60½ft.		Width of sea gate
Basin ... ..	300ft. by 200ft.	380ft. by 250ft.	1,000ft. by 500ft.	100ft. by 330ft.		Basin
Lock ... ..	152ft. by 36ft.	220ft. by 57ft. Sea lock. 200ft. by 50ft. Inner lock.	350ft. by 80ft. Sea lock. 600ft by 80ft. Inner lock.	270ft. by 60½ft.		Lock
Dock ... ..	4,000ft. by 200ft.	{ 3,350ft. by 500ft. 1,000ft. by 300ft. Total length 4,350ft.	2,400ft. by 600ft.	2,100ft. by 370ft.	First reach 4,600ft. by 600ft. Total length 13,000ft.	Dock
Depth of water in Dock	19ft. and 1½ft. 6in.	25ft.	30ft. & 36ft.	25ft. & 35ft.	First reach 30ft.	Depth of water in dock
Depth of water on sill (spring tide)	28ft. 8½in.	31ft. 8½in.	36ft	35ft.		Depth of water on sill (spring tide)
Do. do. (neap tide)	18ft. 8½in.	21ft. 8½in.	26ft.	25ft.		Do. do. (neap tide)
No. of coal staiths for shipment of coal	12	19	13 tips and 11 coaling cranes	14	9	No. of coal staiths for shipment of coal
Water area ...	19½ Acres of dock.	Basin, 3 acres. Dock, 46¼ acres.	Basin, 12 acres. Dock, 33 acres.	Basin, 3 acres Dock, 25 acres		Water area

TABLE I.

YEARS.	NUMBER OF VESSELS.		Total No. of vessels foreign and coastwise.	TONNAGE.		Total tonnage. foreign and coastwise inwards.
	Foreign.	Coastwise.		Foreign.	Coastwise.	
1847	933	5,787	6,420	77,164	367,804	444,968
1848	964	6,522	7,485	145,772	426,437	572,199
1849	1,182	6,166	7,344	182,981	397,892	580,373
1850	1,366	6,314	7,680	236,383	429,893	655,376
1851	1,387	6,490	7,877	260,916	449,753	710,669
1852	1,711	6,212	7,923	331,389	431,696	763,080
1853	2,113	6,200	8,313	428,403	447,836	876,239
1854	2,688	6,304	8,992	502,951	461,115	964,066
1855	2,720	5,662	8,382	607,136	415,781	1,022,817
1856	3,106	6,018	9,124	688,477	446,442	1,134,219
1857	3,082	6,256	9,388	752,366	453,009	1,205,345
1858	2,969	6,406	9,375	650,344	487,978	1,138,322
1859	3,274	6,888	10,262	786,118	548,631	1,334,749
1860	3,528	7,379	10,907	911,442	609,064	1,520,506
1861	3,603	7,933	11,536	879,778	675,355	1,555,133
1862	4,292	7,971	12,263	1,047,400	692,197	1,739,597
1863	4,622	7,715	12,337	1,135,090	684,009	1,819,099
1864	4,146	7,768	11,914	1,120,754	655,287	1,776,041
1865	3,879	7,678	11,557	1,127,560	662,723	1,780,283
1866	4,335	7,573	11,908	1,379,350	646,655	2,026,005
1867	4,466	7,397	11,863	1,456,110	630,438	2,086,548
1868	4,632	6,962	11,594	1,578,619	591,205	2,169,824
1869	4,808	6,995	11,803	1,689,580	607,185	2,385,755
1870	4,736	7,241	11,977	1,786,690	599,440	2,386,133
1871	4,234	6,919	11,153	1,637,725	588,611	2,225,736
1872	4,943	6,994	11,836	1,951,897	600,085	2,552,702
1873	4,694	6,674	11,368	1,920,410	640,089	2,560,499
1874	4,996	6,213	11,176	2,113,987	545,692	2,659,679
1875	4,645	5,541	10,186	1,947,265	493,818	2,441,083
1876	5,111	6,957	12,468	2,367,307	601,240	2,963,547
1877	5,625	6,661	12,286	2,542,210	586,773	3,128,983
1878	5,786	7,138	13,005	2,821,409	613,845	3,335,254
1879	5,761	6,958	12,719	2,944,565	635,613	3,580,178
1880	6,609	7,117	13,726	3,664,576	667,695	4,332,263
1881	5,592	6,853	12,845	3,672,019	705,105	4,377,124
1882	6,032	7,026	13,058	2,151,751	940,836	4,435,293
1883	6,195	7,260	13,455	4,322,849	797,722	5,116,571
1884	6,184	6,823	13,007	4,513,117	785,462	5,298,579
1885	5,990	6,719	12,709	4,563,662	849,512	5,413,174
1886	5,390	6,742	12,132	4,174,950	931,503	5,106,453
1887	5,925	6,531	12,456	4,714,247	919,898	5,634,145
1888	6,179	7,095	13,274	5,148,068	935,694	6,083,762
1889	6,339	7,411	13,750	5,476,773	918,666	6,458,439
1890	4,099	9,672	13,771	3,196,973	3,952,759	7,149,632
1891	4,308	10,415	14,723	3,445,139	4,116,831	7,561,970
1892	3,447	8,770	12,217	2,548,522	2,532,527	5,081,149
1893	3,140	8,861	12,001	2,470,396	2,608,690	5,779,086
1894	3,224	10,543	13,767	2,668,418	3,122,661	5,791,079
1895	3,166	10,150	13,316	2,686,874	2,944,071	5,630,945
1896	3,104	9,652	12,756	3,019,591	3,034,854	6,054,445
1897	3,174	9,933	13,107	3,044,002	2,878,726	5,922,728
1898	2,415	7,771	10,186	1,979,709	2,343,806	4,323,515



INFECTIOUS DISEASES IN THE PORT :—During the year 6 patients have been admitted into the hospitals for infectious diseases belonging to the Cardiff Urban Sanitary Authority. The following table is a statement of the cases and their issue :—

TABLE II.

DATE OF ADMITTANCE 1898.	DISEASE.	CASES ADMITTED.	RESULT.		
			RECOVERED.	DIED.	IN HOSPITAL AT CLOSE OF YEAR.
Jan. 3	Typhoid Fever ... ..	1	1		
Feb. 6	„ „ ... ..	1	1		
March 13	Small Pox ... ..	1	1		
Oct. 13	Typhoid Fever ... ..	1		1	
Dec. 12	Purpura ... ..	1		1	
„ 14	Typhoid Fever ... ..	1		1	
	Total ... ..	6	3	3	

#### HOSPITAL ACCOMMODATION OF THE CARDIFF PORT SANITARY AUTHORITY.

The Port Sanitary Authority has the use of the Sanatorium belonging to the Cardiff Urban Sanitary Authority for the reception of cases of ordinary infectious disease occurring on board vessels in the Port. Ample accommodation for such cases exists, as when the extension of the hospital, which is now being carried out is complete, there will be nearly 200 beds available for the Urban and Port Sanitary Authorities of Cardiff. Cases of Cholera, Yellow Fever, and Plague are dealt with in another way under the regulations of the General Order of the Local Government Board, dated 9th November, 1896, as follows :—

PART I. of the Regulations contains the definition of terms.

PART II. gives power to the Customs Officer to detain vessels suspected to be infected with Cholera, Yellow Fever, or Plague, and requires him to give notice of such detention to the Sanitary Authority.

PART III. requires the Sanitary Authority to fix upon some place where vessels so detained shall be moored, and provides that the Medical Officer of Health shall at once visit the vessel at the mooring station, for the purpose of ascertaining if it is infected. Power is also given to the Medical Officer of Health to visit and examine any ship suspected to be infected, whether detained by the Customs or not, that is, in the case of Cardiff, before the vessel has entered the docks, and in such case if it is found



to be infected the vessel is to be taken to the mooring station already fixed upon. The Medical Officer of Health is required to examine every person on board the infected vessel, and every person certified by him to be suffering from Cholera, Yellow Fever, or Plague shall be removed to the hospital of the Sanitary Authority. No other person is allowed to leave the vessel unless he satisfies the Medical Officer of Health as to his name, intended place of destination, and intended address at such place, in order that this information may be forwarded to the Sanitary Authority of the district in which such intended place of destination is situate. The Regulations provide that the infected vessel shall remain under the supervision of the Medical Officer of Health until every necessary step has been taken to prevent the spread of infection, and details are given as to the destruction or disinfection of infected articles on board.

The Regulations also provide that where a ship has passengers on board who are in a filthy or unwholesome condition, or has come from an infected port, no persons on board such ship shall be allowed to land without giving to the Medical Officer of Health their names and places of destination.

Power is also given to the Sanitary Authority in the case of any such ship to require all water casks and tanks to be emptied and cleansed, and all bilge water to be pumped out in some suitable place before the vessel enters any dock or basin.

By an agreement between the Cardiff and Barry Port Sanitary Authorities persons suffering from Cholera, Yellow Fever, or Plague within the district of the latter authority are received into the hospital of the Cardiff Authority on the Flat Holms Island.

The agreement provides that an annual payment shall be made by the Barry Authority in proportion to the tonnage of vessels entering the several docks, in addition to a weekly payment on account of each patient received into the hospital. The Cardiff Authority undertaking the entire management and control of the hospital.

The new hospital on the island is now complete and ready for use, it consists of one pavilion, containing two wards, and nurses' rooms, bath rooms, lavatories, etc. Each ward contains six beds. In addition to and adjoining the above is a small ward with four beds, formerly used for Cholera patients, making altogether accommodation for sixteen patients.

The caretakers reside on the island in a house belonging to the Port Sanitary Authority, and which is used when required for the administration of the hospital. A very complete laundry has been erected within a convenient distance of the new buildings, and also a small crematorium for the destruction by burning of the bodies of persons dying in the hospital. From the foregoing remarks it will be seen that the Port Authority is very fully equipped for any emergency as well as for the ordinary work of the department.

TABLE III.

The following table gives the number of vessels boarded during the Year ending December 31st, 1898, by the Medical Officer of Health and Inspectors, on account of disease on board during the voyage or at the time of arrival in port :—

DATE 1898.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
Jan. 3	11.30 a.m.	s.s. Cape Colonna	British ...	Poti <i>via</i> Rotterdam	Typhoid Fever	The Master reported that the ship left Poti (Black Sea) Nov. 24th, called at Constantinople, Malta, Bizert, and Gibraltar; left Gibraltar Dec. 12th, arrived Rotterdam on the 19th, and on the 22nd Nien Nielsen, 1st Mate, age 37 years, complained of being unwell. Ship left Rotterdam Dec. 30th, arrived Cardiff, on Jan. 2nd, when he was medically attended, and certified the following day to be suffering from Typhoid Fever, and was forthwith removed to the Sanatorium. His effects and berth were disinfected, and the fresh water tanks emptied and cleansed, and a fresh supply of water taken at this port.
Feb. 6	11.30 a.m.	s.s. Amphitrite	Greek ...	Sulina <i>via</i> Antwerp	Typhoid Fever	On arrival at this port the Master reported that Michael Condari, A.B., age 42 years, was taken ill at Antwerp on January 31st, and on arrival here on Feb. 6th he was medically attended and certified to be suffering from Typhoid Fever, and was forthwith removed to the Sanatorium. His berth and effects were disinfected, and water tanks emptied and cleansed, and a fresh supply of water taken at this port.

TABLE III.—*continued.*

DATE 1898.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
March 9	11.0 a.m.	s.s. Honiton ...	British ...	Rotterdam ...	Yellow Fever ...	The Mate reported the ship left Cardiff on May 2nd, 1896, for St. Vincent and from thence to the United States, and has been trading between the U.S. and Cuba since that date. On Sep. 23rd, 1897, Hans Gullickson, A.B., age 28 years, was taken ill and died on the 28th. On Sept. 30th — Leidler, 1st Engineer, age 52 years, was taken ill and died on Oct. 4th. On Oct. 2nd, Charles Reid, Mess-room Steward, age 38 years, was taken ill and died on Oct. 7th. All three suffered from Yellow Fever and were buried at sea. The ship was fumigated three times at Boston and Mexico, and deceased's effects were also fumigated and sent on shore to the Consul. All the remaining members of the crew had suffered more or less from Malaria during the voyage, but all well on arrival at this port.
" 11	9.30 a.m.	s.s. Mimosa ...	British ...	Ergasteria <i>via</i> Maryport	Small Pox ...	Communication received from the Authorities at Maryport <i>re</i> two cases of Small Pox landed there from the s.s. "Mimosa." Ship left that port for Cardiff, where the names and addresses of those leaving the ship were taken and forwarded to the Authorities at the places of destination. No other case occurred here up to the time of sailing.
" 13	10.50 a.m.	s.s. Rothesay ...	British ...	Seville & Cadiz <i>via</i> Glasgow	Small Pox ...	Ship arrived at Seville Feb. 13th, sailed on the 25th; arrived Cadiz on the 26th, sailed the 27th; arrived at Glasgow March 6th, when James James, 2nd Engineer, age 24 years, was taken sick; left Glasgow March 11th, arrived Cardiff on the 13th, when he was medically examined and certified to be suffering from Small Pox, and was immediately removed to the Small Pox Hospital. His effects and the ship were disinfected, all members of the crew vaccinated, and names and addresses of those leaving the ship were taken and forwarded to the places of destination.

TABLE III.—*continued.*

DATE 1898.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
July 29	9.50 a.m.	s.s. Roath	British	Rotterdam	Dysentery	On boarding this vessel, the Mate reported that the late Chief Officer, Mr. W. K. Oakes, died in hospital, at New Orleans, on January 12th, from Dysentery. All well on arrival at this port.
Aug. 15	3.25 p.m.	Murtaja	Russian	Liverpool	Typhoid Fever	The Second Mate, after having left the ship, was admitted into the Sanatorium from Patrick Street, suffering from Typhoid Fever. His clothes and the ship were disinfected, also water-tanks emptied, cleansed and refilled at this port.
Sept. 2	9.50 a.m.	Battistina Madre	Italian	Mobile	Intermittent Fever	On boarding this vessel, four members of the crew were found to be suffering from Intermittent Fever, and were subsequently medically attended on board. Water-tanks emptied, cleansed and refilled at this port.
Sept. 26	11.20 a.m.	s s. Henley	British	Santos & Mobile <i>via</i> London	Malarial Fever	On boarding this vessel, G. Green, Second Mate, was found to be suffering from Malarial Fever, and was medically attended on board. All the rest of the crew well.



TABLE III.—*continued.*

DATE 1898.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
Oct. 7	...	s.s. Ariosto ...	British ...	Hamburg ...	Typhoid Fever	Notification received to the effect that Frederick Pupp, fireman, age 25 years, was admitted to the Hamadryad Hospital Ship on October 7th, suffering from Pneumonia, and afterwards developed Typhoid Fever (certified on the 12th). Removed to Sanatorium. His effects were disinfected. The ship sailed about the 10th.
Nov. 14	...	s.s. Borrowdale	British ...	Havre ...	Erysipelas ...	Notification received to the effect that Nils Pettersen, A.B., was admitted into the Hamadryad Hospital Ship on November 12th, and on November 14th was certified to be suffering from Erysipelas. Vessel sailed same day.
Dec. 5	...	s.s. Falken ...	Swedish ...	Nantes ...	Typhoid Fever	Notification received to the effect that Wilhelm Pettersson, A.B., age 30 years, was admitted into the Hamadryad Hospital Ship on December 5th, and on the 14th was certified to be suffering from Typhoid Fever. He was forthwith removed to the Sanatorium, where he died on 26th December, 1898.
Dec. 12	7.15 a.m.	s.s. Treneglos .	British ..	Taganrog <i>via</i> Gibraltar and Bordeaux	Purpura ...	On boarding this vessel on arrival, J. Graham, fireman, age 30 years, was found ill on board. He was taken ill on December 9th. He was removed to the Hospital, where he died the following day from Purpura. Several members of the crew had been ill more or less during the voyage. The forecables were disinfected and bedding, &c., destroyed on board.

INSPECTION OF SHIPPING.—During the year 1898, 5,627 vessels were inspected, 4,528 were found in a fair or good condition, and 1,101 in a more or less defective or insanitary state.

One hundred and fifty-seven written notices were served, and nine hundred and forty-four verbal orders were given.

The systematic inspection of shipping in the Bute and Penarth Docks was efficiently performed by the Chief Inspector, David Jenkins, and by the Assistant Inspectors, F. S. Rees and S. J. Holbourn.

The annexed tables will afford evidence of useful work performed by the officers of the Port Sanitary Authority, and will show that the inspection of shipping in the port has resulted in a great improvement in the sanitary condition of the floating population.

The chief defects found on board ship were: defective ventilation, impure water supply, defective bulkheads, defective drainage or water-closet accommodation, leaky decks, unlined iron decks, and direct communication between men's berths and water-closets.

As a rule very little difficulty was experienced in obtaining compliance with the requirements of the Inspector.

Shipowners and Masters willingly carry out the recommendations of the Port Sanitary Authority, with the result that the proportion of vessels having sanitary defects, amongst those which frequent this port, has decreased in a most marked manner.

The following table shows the number of vessels, foreign and coastwise, inspected during the year:—

TABLE IV.

				NUMBER INSPECTED.	NUMBER DEFECTIVE.	NUMBER OF ORDERS ISSUED.
FOREIGN	{	Steamships ... ..	..	1,666	400	400
		Sailing Ships ... ..	...	427	148	148
		Fishing ... ..	...	—	—	—
				2,093	548	548
COASTWISE	{	Steamships ... ..	...	2,185	316	316
		Sailing Ships ... ..	...	1,334	235	235
		Fishing ... ..	...	15	2	2
				3,534	553	553
Total Foreign and Coastwise ... ..				5,627	1,101	1,101

The following table shows the number and nationalities of the vessels inspected during the year :—

TABLE V.

NATIONALITY.					STEAM.	SAIL.	TOTAL STEAM AND SAIL.
American	...	...	...	...	—	1	1
Argentine	...	...	...	...	1	—	1
Austrian	...	...	...	...	22	2	24
Australian	...	...	...	...	1	—	1
Belgian	...	...	...	...	8	—	8
Brazilian	...	...	...	...	—	2	2
British ...	...	...	...	...	3,250	1,338	4,588
British American	...	...	...	...	—	18	18
Chilian ...	...	...	...	...	—	1	1
Danish	...	...	...	...	20	11	31
Dutch ...	...	...	...	...	24	3	27
French	...	...	...	...	139	95	234
German	...	...	...	...	72	26	98
Greek	...	...	...	...	43	1	44
Italian	...	...	...	...	45	23	68
Japanese	...	...	...	...	1	—	1
Norwegian	...	...	...	...	145	144	289
Portuguese	...	...	...	...	3	12	15
Russian	...	...	...	...	7	25	32
Spanish	...	...	...	...	43	20	63
Swedish	...	...	...	...	55	25	80
Turkish	...	...	...	...	1	—	1
Totals	...	...	...	...	3,880	1,747	5,627

During the year the forecastles, berths, water-closets, etc., in 595 British ships and 141 Foreign ships, respectively, have either been cleansed, painted, or lime-washed.

The following table shows their Nationality.

TABLE VI.

Argentine	...	...	...	...	..	1
Austrian	..	...	...	...	...	3
Australian	...	...	...	...	...	1
Belgian	...	...	...	...	...	3
Brazilian	...	...	...	...	...	1
British	...	...	...	...	...	595
British American	...	...	...	...	...	5
Danish	...	...	...	...	...	4
Dutch	...	...	...	...	...	2
French	...	...	...	...	...	48
German	...	...	...	...	...	7
Greek	...	...	...	...	...	8
Italian	...	...	...	...	...	16
Norwegian	...	...	...	...	...	24
Portuguese	...	...	...	...	...	1
Russian	...	...	...	...	...	2
Spanish	...	...	...	...	...	8
Swedish	...	...	...	...	...	7
Total	...	...	...	...	...	736

The following table shows the number and nationalities of the vessels on which structural defects were detected :—

TABLE VII.

NATIONALITY.	Number of Ships.	Defective Side Ports.	Defective Water-closets.	Defective Bulkheads and Floors in Crew's Spaces.	Defective Cable Casings in Crew's Spaces.	Defective or Unlined Iron Decks over Berths.	Defective Stoves and Funnel's in Crew's Spaces.	Defective Ventilation.	Defective Ventilation to Deck Water-closets.	Defective and Dirty Water Casks and Tanks.	Defective Lighting.	Defective Ventilators in Crew's Spaces.	Defective Drainage.	Leaky Decks over Berths.	Foul Bilges and Peaks.	Ship's Stores kept in Crew's Spaces.	Foul Accumulations.	Water-closets and Paint Lockers adjoining and ventilating into Berths.	CASES.	REMEDIED.
Austrian	3	9	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	11	11
Brazilian	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
British ...	350	96	21	21	16	25	54	12	1	20	40	16	7	41	27	26	26	1	474	460
British American...	3	...	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	4	4
Chilian...	1	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	3	3
Danish ...	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	2
Dutch ...	5	...	...	...	...	...	...	1	2	...	...	...	...	...	...	1	...	...	6	6
French...	35	1	2	4	...	...	1	11	2	4	17	...	...	1	...	12	2	...	55	45
German	9	2	...	1	...	...	...	1	3	...	2	...	...	...	...	...	...	...	10	8
Greek ...	8	2	...	...	...	1	...	...	1	...	...	...	...	...	4	1	1	...	9	9
Italian ...	10	1	...	2	...	...	...	3	3	1	2	...	...	1	...	...	...	...	13	12
Norwegian	46	3	4	...	...	...	1	13	24	1	4	...	...	5	...	1	2	...	58	56
Portuguese	2	...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	3	3
Russian	14	...	1	...	...	...	...	4	10	...	4	...	...	...	1	...	...	...	20	18
Spanish	8	...	...	...	...	...	...	...	2	2	1	...	...	...	...	4	...	...	9	9
Swedish	17	4	2	1	...	...	...	3	7	...	1	1	...	1	...	...	1	...	21	21
Total	514	118	31	30	16	27	56	50	85	30	72	17	7	49	32	46	32	1	699	668



The following table shows the quantity of Frozen Meat that has been landed at this Port during the year :—

TABLE VIII.

DATE. 1898.	NAME OF SHIP.	WHERE FROM.	BEEF.			MUTTON.			Lambs	Hearts (Boxes & Bags)	Tongues (Bags)	Greeves (Bags)
			Quarters	Fore Quarters	Hind Quarters	Carcases	Half Carcases	Hind Quarters				
Jan. 4	s.s. Zarate ...	River Plate via London ...	...	...	...	5,000	...	...	...	...	...	...
" 24	s.s. Hornby Grange ...	River Plate via Newcastle ...	523	...	...	9,318	4,000	...	...	60	...	...
" 28	s.s. Zephyrus ...	River Plate via Liverpool...	144	...	...	3,800	29	...	...	50	...	...
Feb. 24	s.s. Zenobia ...	River Plate via Liverpool...	...	...	...	2,400	...	...	...	100	...	...
Mar. 17	s.s. Ovingdean Grange	River Plate via Liverpool...	...	300	300	10,100	...	4,500	...	20	6	...
" 19	s.s. Zero ...	River Plate via Liverpool...	...	...	...	4,700	...	...	...	30	...	...
April 7	s.s. Zarate ...	River Plate via Liverpool...	...	...	...	7,100	...	...	...	20	...	...
June 1	s.s. Zenobia ...	River Plate via Liverpool...	...	...	...	4,000	...	...	...	20	...	...
" 7	s.s. Southern Cross ..	River Plate via Newcastle	800	...	...	14,794	650	5,518	...	446	...	200
Aug. 2	s.s. Ovingdean Grange	River Plate via Liverpool...	...	...	...	7,000	...	...	...	...	...	...
" 5	s.s. Zarate ...	River Plate via London ...	...	...	...	6,000	...	...	...	...	...	...
Sept. 7	s.s. Zenobia ...	River Plate via Liverpool...	...	...	...	8,000	...	...	...	...	...	...
" 27	s.s. Hornby Grange ...	River Plate via Newcastle	366	...	...	9,358	...	5,666	100	112	...	...
Oct. 8	s.s. Zero ...	River Plate via Liverpool...	...	...	...	7,000	...	...	...	...	...	...
Nov. 14	s.s. Zarate ...	River Plate via Liverpool...	...	...	...	7,000	...	...	...	...	...	...
Dec. 10	s.s. Ovingdean Grange	River Plate via Newcastle	2,000	...	...	13,365	...	5,000	50	160	...	...
		Totals	3,833	300	300	118,935	4,679	20,684	150	998	6	200

IMPORTATION OF FROZEN MEAT.—From the enclosed table it will be seen that the frozen meat trade is, in the port, a large and important industry, and the due inspection of such meat forms an important part of the duty of the Inspectors. In each case the ship carrying the meat was inspected and notice of the destination of the cargo forwarded to the Inspector of Nuisances of the Urban Sanitary Authority, who visits the refrigerators and provision shops.

In this way the meat is kept, as far as possible, under supervision until the time of sale. Altogether, sixteen cargoes of frozen meat arrived in this port during the year.

The importation of foreign cattle has continued during the year. The s.s. "Maryland" arrived in this port on May 20th and on August 12th with large cargoes consisting of 451 head of live cattle. The supervision of this trade is under the inspectors appointed by the Privy Council and Board of Agriculture.

#### LEGAL PROCEEDINGS.

September 23rd, 1898.—Proceedings were instituted against Captain Olivier, of the French vessel "Gloire de Marie," for non-compliance with an order of the Port Sanitary Authority to remedy certain sanitary defects on his vessel. A summons was issued, but was withdrawn on payment of costs and the captain promising to carry out the necessary work, which was done.

I have the honour to be, Gentlemen,

Your obedient Servant,

EDWARD WALFORD, M.D.,

*Medical Officer of Health.*